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\*Estimates of Damage to Corn by the European Corn Borer in 1945

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It is estimated that the European corn borer in 1945 caused a loss of about \$36,700,000 to the corn crop valued at approximately \$1,174,100,000 grown in the northeastern part of the United States and including sizable portions of the Corn Belt as far west as central Iowa. These estimates are derived from survey data obtained in cooperation with State agencies on the relative abundance of the insect in the fall of 1945 in 398 counties in 22 States out of a total of 888 counties in the country known to be infested. It is probable that the estimates include at least 90 percent of the total current loss caused by the pest in the United States. However, it is believed that they are very conservative in view of the increased corn acreages and higher yields of the last several years which were not considered in the preparation of the figures. In 1944, on a somewhat comparable basis, the estimated loss to corn amounted to about \$22,700,000.

The 1945 estimates were made by the same procedure used in the preparation of similar estimates in previous years, as follows: (1) Established damage indices of 3-, 5-, and 8-percent loss per borer per plant in corn for grain, canning sweet corn, and market sweet corn, respectively, were applied to populations of the insect found in each county surveyed in the fall of 1945 to obtain percentages of loss in the types of corn represented. (2) Values of the corn crop in each county were estimated, and the monetary loss caused by the borer was calculated by applying to them the estimated percentages of loss. To obtain these values, data on corn production were taken from the agricultural census of 1940 and to a limited extent from that of 1945, and current market prices were obtained from reports of the Bureau of Agricultural Economics and the Agricultural Marketing Administration of the U. S. Department of Agriculture, and from various State and city organizations which generously supplied information. (3) The county data were combined to show the monetary loss of corn for grain and of sweet corn, for each State and for the surveyed area as a whole.

The 1945 estimates of damage are presented in table 1. They were prepared on the basis of 15,968,983 acres of corn for grain, with an estimated crop value of \$1,141,649,989, and 306,702 acres of sweet corn, with an estimated crop value of \$32,498,410. The combined acreage of grain and sweet corn was 16,275,685 and the estimated crop value of both totaled \$1,174,148,399. The estimated total loss caused by the European corn borer to the corn crop in the area surveyed in 1945 was \$36,764,565. Of this amount 89.3 percent, or \$32,846,459 occurred in corn harvested for grain, and 10.7 percent, or \$3,918,106 in sweet corn.

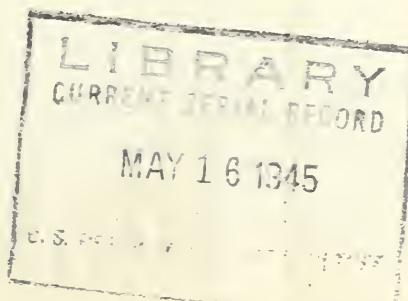


Table 1.—Estimates of damage by the European corn borer to corn harvested for grain and to sweet corn in the 398 counties surveyed in 1945 of the 888 counties known to be infested.